

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Carrier Current Systems, including	)	ET Docket No. 03-104
Broadband Over Power Line Systems	)	
	)	
Amendment of Part 15 Regarding	)	ET Docket No. 04-37
New Requirements and Measurement	)	
Guidelines for Access Broadband	)	
Over Power Line Systems	)	

REPLY OF CORTLAND E. RICHMOND, JR.  
TO  
COMMENTS OF AMBIENT CORPORATION

These Reply Comments are filed in response to comment in the referenced NPRM dated 3 May 2004 by Ambient Corporation, hereafter referred to as "Ambient.." The writer has been employed in the field of Radio Frequency Interference and Electromagnetic Compatibility since 1983, has held an Amateur Radio license over 40 years, and spent more than 21 years in the Army working with and on communications systems and electronic equipment.

Ambient comments:

*Ambient believes that such coexistence of BPL with other critical uses of spectrum is a goal which can be achieved.*

*The Commission has allowed unlicensed devices to employ relatively low level RF signals provided their operation did not generate field strengths greater than a specified level which the Commission selected so that these devices generally would not be expected to cause interference. Under the Commission's policies "...a certain amount of interference between devices is acceptable; however, beyond a certain limit interference can be considered harmful ..."2 Ambient requests that the Commission set the boundaries for what is considered harmful interference so that there is a realistic opportunity for the early deployment of BPL technologies and the achievement of the many public benefits which such deployment will make possible.*

Ambient seems to be laboring under the delusion that the establishment of Part 15 limits on emissions defines harmful interference,. This is incorrect. Harmful interference is defined not by the maximum level of emissions from a regulated incidental or unintentional radiator, but by the effect those emissions have on reception of licensed services by persons and parties left undefined.

International treaties and the Rules (at Part 2 and Part 15, among other places) define as harmful interference:

Any emission, radiation or induction that endangers the functioning of a radio navigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunications service operating in accordance with this Chapter.

There is in most local and state statutes a motor vehicle offense sometimes referred to as “driving too fast for conditions.” It is not enough to claim as defense that one was driving under the speed limit, when other evidence shows the speed limit did not produce safe driving. However, Ambient seems here to ask the Commission to declare that no matter how harmful interference actually is – in other words, no matter how dented the car is – harmful interference cannot happen if the legal maximum is observed. But the Commission, at Section 15.15, General technical requirements, admonishes those operate under Part 15 that interference can indeed occur even when the limits of Part 15 are observed:

(c) Parties responsible for equipment compliance should note that the limits specified in this Part will not prevent harmful interference under all circumstances. Since the operators of Part 15 devices are required to cease operation should harmful interference occur to authorized users of the radio frequency spectrum, the parties responsible for equipment compliance are encouraged to employ the minimum field strength necessary for communications, to provide greater attenuation of unwanted emissions than required by these regulations, and to advise the user as to how to resolve harmful interference problems (for example, see Section 15.105(b)).

At this time there is a growing body of convincing evidence that operation of a broadband distributed emitter at Part 15 levels does cause and will cause harmful interference to radio reception near the emitter and in many cases, for some distance from the emitter.

Ambient concludes by recommending that,

*“As the President has described, the Commission should promptly adopt rules changing current technical standards for BPL technologies to foster the important public service benefits which BPL is capable of providing as an important new competitive broadband technology...”*

To this writer, that sounds a lot like hinting to the police that the Mayor might want the speeding ticket “fixed.” The writer urges the Commission to disregard suggestions it rewrite the law to favor Ambient, as well as others of similar bent.

Respectfully submitted,

27 May 2004

Cortland E. Richmond, Jr.